

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference  O 1 P 100 WO	<b>FOR FURTHER ACTION</b>  see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No.  PCT/EP2005/001127	International filing date (day/month/year)  04/02/2005	(Earliest) Priority Date (day/month/year)  20/02/2004
Applicant  OUTOKUMPU OYJ		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☒ Unity of invention is lacking (see Box III).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2005/001127

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5 (partially);6-15;23-30

A process, and its associated electrolytic plant, for electrodepositing copper from an electrolyte solution, in which the electrodes have a horizontal hanger bar with a first end and a second end and at the edge of the electrolyte tank two contact bars are provided, with each connected to a power source, the first end of the hanger bar of the cathode resting on one of the two contact bars via a two-line contact and the first end of the hanger bar of the anode resting on the other one of the two contact bars via a two-line contact.

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2. claims: 1-5 (partially);16-21;31-33

A process, and its associated electrolytic plant comprising at least one electrolytic cell, for electrodepositing copper from an electrolyte solution, in which in the at least one electrolytic cell a fluid distributor is provided, through which during operation of the electrolysis electrolyte solution, gas bubbles or a mixture of electrolyte solution and gas bubbles are introduced into the electrolytic cell.

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3. claims: 1-5 (partially);22

A process, and its associated electrolytic plant, for electrodepositing copper from an electrolyte solution, in which the cathodes have an indentation of V-shaped cross-section at their lower longitudinal edge.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/001127

## A. CLASSIFICATION OF SUBJECT MATTER

C25C1/12 C25C7/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C25C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 199 40 698 A1 (METALLGESELLSCHAFT AG; MG TECHNOLOGIES AG) 8 March 2001 (2001-03-08)	1-7, 9-15, 23-30
Y	column 2, line 29 - column 3, line 15; figures 1-4	8,16-22, 31-33
Y	----- US 5 679 240 A (ANASTASIJEVIC ET AL) 21 October 1997 (1997-10-21) column 1, line 32 - line 57 column 2, line 5 - line 50	8
A	----- GB 1 460 089 A (IMPERIAL METAL INDUSTRIES LTD) 31 December 1976 (1976-12-31) page 2, line 24 - line 37 page 3, line 95 - line 109 ----- -/--	1-8, 23-25

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

27 March 2006

Date of mailing of the international search report

10. 04 2006

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/001127

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 098 668 A (ANDERSEN ET AL) 4 July 1978 (1978-07-04) column 2, line 57 - column 3, line 64; figures 1,3,5 column 5, line 3 - column 6, line 20 -----	16-21, 31-33
A	US 4 066 520 A (EMMETT, JR. ET AL) 3 January 1978 (1978-01-03) column 6, line 18 - line 40 column 11, line 14 - line 20; figure 7 -----	16-21, 31-33
A	US 6 398 939 B1 (HUENS JEAN-LOUIS ET AL) 4 June 2002 (2002-06-04) column 4, line 15 - line 38; figure 1 column 5, line 29 - line 47; figure 3 -----	16-21, 31-33
Y	US 5 865 967 A (HIAI ET AL) 2 February 1999 (1999-02-02) column 3, line 9 - line 13; figures 1,2 -----	22
A	WO 00/32846 A (OUTOKUMPU OYJ; COPPER REFINERIES PTY LTD; MESCO INC; ERIKSSON, OLA; AR) 8 June 2000 (2000-06-08) page 8, line 24 - page 9, line 9; figures 3-5 -----	22

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/001127

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 19940698	A1	08-03-2001	AU 4404000 A WO 0116400 A1	26-03-2001 08-03-2001
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